

NORTHERN DISTRICT OF ILLINOIS
EASTERN DIVISION

UNITED STATES OF AMERICA)
) No. 08 CR 192
 v.)
) Hon. Ruben Castillo
 HANJUAN JIN)

GOVERNMENT'S SENTENCING MEMORANDUM

Respectfully submitted,

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TABLE OF CONTENTS

I.	INTRODUCTION	1
II.	GUIDELINE CALCULATIONS AND RECOMMENDED SENTENCE	3
A.	Applicable Guideline Calculations	3
	Intended Loss Amount is at Between \$20 and \$50 Million	4
	Intent to Benefit a Foreign Government	4
	Special Skill	11
B.	Defendant Should Receive a Significant Sentence Pursuant to the Sentencing Factors under 18 U.S.C. § 3553(a)	12
1.	Nature and Circumstances of Offense and the Need to Reflect the Seriousness of the Offense, Promote Respect for the Law, and Provide Just Punishment for the Offense	13
a.	Congress and the Courts View the Theft of Trade Secrets as a Serious Offense	13
b.	Impact on Motorola	14
2.	Defendant's History and Characteristics	23
3.	The Need to Afford Adequate Deterrence	23
III.	CONCLUSION	25

The UNITED STATES OF AMERICA, by GARY S. SHAPIRO, Acting United States Attorney for the Northern District of Illinois, respectfully submits its Sentencing Memorandum regarding HANJUAN JIN.

I. INTRODUCTION

In February 2007, Defendant, a nine-year software engineer for Motorola, betrayed the trust Motorola placed in her by stealing Motorola's proprietary iDEN telecommunications technology for herself and Sun Kaisens, a company that developed telecommunications technology for the Chinese military. Motorola invented the stolen technology over 20 years ago and since that time developed and guarded it from competitors to insure that it was the sole company authorized to market and sell the technology worldwide. Over the past twenty years, the iDEN technology generated hundreds of millions of dollars in revenue for the company, including \$365 million in 2011 alone, and was responsible for the employment of hundreds of Motorola engineers and staff. *See* Government's Supplemental Version of the Offense¹ ("Government Supplemental Version"). The iDEN technology is a vital and profitable part of Motorola's business and a critical part of the cellular telecommunications industry. *Id.* For instance, in a 10-K filing submitted by Motorola iDEN customer NII Holdings (Nextel International), NII reported revenues of over \$2 billion and noted that Motorola was the sole company manufacturing iDEN technology. *See* excerpt of NII's 2006 Form 10-K filing, attached as Exhibit 19 to Government's Version of the Offense ("Government's Version"), at 111.

In a matter of days in February 2007, defendant put Motorola's entire iDEN business, as well as the decades of work and innovation by Motorola employees, in jeopardy. More specifically, through a series of lies to Motorola employees, Defendant gained access to Motorola's campus in

¹ Motorola provided a letter detailing the impact and effect Defendant's conduct had on Motorola and its employees, which is attached to the Government's Supplemental Version of the Offense.

Schaumburg, Illinois, and then raided the iDEN technology. The Defendant's raid of iDEN documentation was so thorough - she stored thousands of documents to her portable hard drive - that Defendant, as well as anyone else that had access to that portable hard drive, had the blueprint necessary to create competing iDEN products and systems.

Defendant lied to Motorola employees and stole the technology to benefit herself and the Chinese military. More specifically, Defendant hoped to use the Motorola technology to start a new life and job in China working as an engineer for Sun Kaisens. Notably, Sun Kaisens described itself as “[a]s a young and vigorous high tech enterprise, . . . determined to contribute to the development of National Defense communication of P.R. China.” *See Exhibit 5 to Government’s Version*, document number 21.

Based on Defendant’s conduct, Defendant’s properly-calculated Guideline range is 121 to 151 months imprisonment.² While this applicable Guidelines range calls for a substantial period of incarceration, the Guidelines range is chiefly driven by an exceptionally-conservative calculation of the intended loss amount. More specifically, Defendant essentially stole the entire iDEN technology, for which Motorola spent well in excess of \$400 million researching and developing in just a matter of years. However, the government only seeks to hold Defendant accountable under the Guidelines for an intended loss of \$20 to \$50 million, which as explained below is the research and development cost related to just a few of the hundreds of documents she stole from Motorola.

² Detailed findings of fact related to Defendant’s conduct are included in the Court’s February 8, 2012 Memorandum Opinion and Order (hereinafter, “Order”) issuing the verdict in this case. *See Docket Entry number 209*, pages 3-50. Accordingly, the government will not restate those same facts in this filing. For the same reason, the government will not repeat the facts summarized in: (1) the Presentence Investigation Report (“PSR”), lines 35-106; (2) the Government’s Version, and (3) the Government’s Supplemental Version.

At this time, the government is not making a specific sentencing recommendation to the Court because the government expects to learn more about defendant's health status in Defendant's sentencing memorandum. After obtaining this additional information, the government will promptly provide its sentencing recommendation to the Court.

II. GUIDELINE CALCULATIONS AND RECOMMENDED SENTENCE

A. Applicable Guideline Calculations

Defendant's maximum term of imprisonment for each of Counts One, Two and Three is 10 years, for a total maximum sentence of imprisonment of 30 years.³ PSR, lines 361-362. Additionally, the government agrees with the PSR that the properly-calculated guideline range for Defendant is as follows:

Base offense level (2B1.1(a)(2))	6
Intended Loss Amount is between \$20 and \$50 million (2B1.1(b)(1)(L))	+22
Defendant knew or intended that the offense would benefit a foreign government (2B1.1(b)(5))	+2
Defendant used a special skill that significantly facilitated the commission of the offense (3B1.3)	+2
ADJUSTED OFFENSE LEVEL	32

PSR, lines 121-169. Defendant's criminal history points total is zero, and therefore she is in criminal history category I. PSR, lines 171-177. Accordingly, defendant's properly-calculated Guideline range is 121 to 151 months' imprisonment. PSR, lines 363-364.

³ Defendant was convicted following a five-day bench trial of violating Counts One, Two and Three, which charged her with violating Title 18, United States Code, Section 1832. Order, at 77. Defendant was found not guilty on Counts Four, Five and Six, which charged her with violating Title 18, United States Code, Section 1831. *Id.*

Defendant has yet to contest the Sentencing Guidelines as calculated in the PSR, but based on her defense at trial, the government anticipates that Defendant will contest each of the enhancements set forth above. Accordingly, the government's position with respect to each Guideline enhancement, which was adopted by the PSR, is set forth below.

Intended Loss Amount is at Between \$20 and \$50 Million

The government seeks an intended loss amount of \$20 to \$50 million, which results in a 22 level increase in the offense level pursuant to Guideline Section 2B1.1(b)(1)(L). More specifically, Defendant's theft of iDEN technology was so vast that anyone obtaining the documents (or stealing the documents even from Defendant) had the means to replicate an entire iDEN system. Despite the fact that Defendant stole essentially the entire technology, the government is not, at this time, seeking to hold Defendant responsible for the cost associated with even a single year of research and development of the iDEN technology, which in each year between 2001 and 2006 was more than \$50 million. Nor is the government seeking to hold Defendant responsible for even a single year of Motorola's iDEN-related revenues, which were \$365 million in 2011. The \$20 to \$50 million loss figure is based, rather, on a calculation of the research and development costs generated as part of just a handful of the hundreds of Motorola documents that Defendant stole from Motorola.⁴

Intent to Benefit a Foreign Government

The offense level is increased an additional 2 levels pursuant to Guideline §2B1.1(b)(5) because the offense involved misappropriation of a trade secret, and the Defendant intended that the offense would benefit a foreign government. In finding Defendant not guilty of Counts Four, Five and Six, the Court determined that the government's evidence "failed to establish beyond a

⁴ Rather than restate all of the evidence set out in detail in the Government's Version on the intended loss calculation here, the government incorporates pages 32 to 41 of the Government's Version.

reasonable doubt that Jin intended or knew that her conduct would benefit the [People's Republic of China]." Docket Entry 209, page 77. However, at the sentencing hearing, the government may prove applicable enhancements by a lower standard of a preponderance of the evidence. *See* Guidelines Section 6A1.3, commentary.

In this case, the government can meet this burden based on Defendant's statements to law enforcement, her emails with Chief Qi and Liu (both Sun Kaisens employees that had direct contact with Defendant) and the documents that she was given by Liu during her last trip to China between November 2006 and February 2007. Also, as explained by the government's expert witness on the Chinese military-industrial complex, Defendant's conduct is consistent with the means used by the Chinese government to collect information about United States technology.

As an initial matter, the Court found that Defendant was planning to obtain employment at Sun Kaisens in China. This is supported by Defendant's own statements (including that she expected to be offered a job by Liu when she returned to China) and her emails with Chief Qi. The Court also found that Defendant told FBI agents that she "wanted the [Motorola] documents to help her get her next job." Order, at 18. Thus, as the evidence showed at trial, Defendant was taking the Motorola documents with the intent to help with her work at Sun Kaisens.

The Court also found that the documents recovered from Defendant show that "Sun Kaisens works closely with the Chinese Military." Order, at 49. For instance, Defendant was carrying a commercial script for Sun Kaisens that stated: "'Devotion and Contribution to National Defense' is the entrepreneurial ideal of SUNKAISENS'.... And surely it will contribute to the national defense . . ." Government Exhibit Ion 9-TR, at 14. Additionally, as the Court noted, one document recovered from Defendant listed Sun Kaisens as part of "the highest decision-making body of the Comprehensive Mobile Communications Project." *See* Exhibit 8 to Government's Version.

The evidence at trial also showed that between November 2006 and February 28, 2007, Defendant had done work for Sun Kaisens and that work was primarily focused on developing products for the Chinese military. For instance, on December 4, 2006, while Defendant was in China, Liu emailed Defendant a project to be discussed with the 61st Research Institute in the near future. As the Court noted in its Order, the 61st Research Institute is part of the Chinese military and works to develop telecommunications technology for the Chinese military. Also, Defendant stated that Liu gave her a number of documents to review to see how she could help. These documents are set out on Exhibit Five to the Government's Version. Defendant stated that she took the documents and agreed to review them and provide assistance. The vast majority of these documents deal with Chinese military technology or are classified as Secret. Moreover, a number of the documents listed on Exhibit Five are drafted by entities that fall within the Chinese military or within the Chinese military-industrial complex. These documents were saved to Defendant's electronic media just weeks before she stole thousands of Motorola iDEN documents and attempted to board an airplane for China (with a one-way ticket), where she then expected to start a new life working for Sun Kaisens.

Additional evidence that Defendant's work at Sun Kaisens related to projects for the Chinese military is garnered from comparing her statements to law enforcement with the Chinese documents recovered from her on February 28, 2007. More specifically, Defendant stated during an interview with FBI agents that Liu wanted to determine whether Defendant could contribute to the "Short Message" project. Order, at 20. Notably, documents 8, 14, and 20 listed on Exhibit 5 to the Government's Version are authored by a Chinese military entity or Sun Kaisens, and deal with a "short messaging" project or a "short message center." For instance, Document 20 is titled "Data

Packet Format Protocol of Artillery's Quick Counter Short Messaging Application System (Draft)."

A portion of this document states the following:

Requested by Artillery Commanding Post of Army Group XXX and based on full discussions between the two parties, it is decided that Sun Kaisens (Beijing) S&T Co. Ltd.'s 'Vehicular CDMA Mobile Communication System's Short Messaging' will be used for transmitting artillery firing commands and other data. Once completed, the system only takes 8-12 seconds from the point when the surveillance soldier discovers the target, the commanding post makes the calculations, and individual artillery positions receive firing orders. Artillery positions will be able to report firing results to the commanding post within six seconds. The deployment of this system will greatly enhance the quick response capabilities of artillery units.

See Document 20 listed on Exhibit 5 to Government's Version. Accordingly, the evidence makes clear that when Defendant returned to China she would be working on military projects.

In the February 8, 2012 order, the Court found that Sun Kaisens was focusing on technology related to soft-switching and CDMA technology and that the technology available to Sun Kaisens was more advanced than iDEN technology. Order, at 49. However, for this sentencing enhancement, the inquiry is whether "defendant knew or intended that the [misappropriate of a trade secret] would benefit a foreign government." Accordingly, Defendant's intent in stealing the trade secrets rather than the actual utility of the trade secrets to Sun Kaisens and the Chinese military is the critical inquiry under Guidelines Section 2B1.1(b)(5).

The timeline of Defendant's conduct best demonstrates her intent to use the Motorola documents to benefit her work at Sun Kaisens. More specifically, on February 15, 2007, Defendant returned to the United States shortly after a series of meetings with Liu and others at Sun Kaisens. During these meetings, Liu provided Defendant with the classified Chinese military documents describing telecommunications projects and asked Defendant to help. At that time, Defendant agreed to help with the Sun Kaisens projects. Days later, after having time to digest the information

about the projects, Defendant used her few remaining days in the United States to launch her scheme to enter Motorola's office space and essentially steal the entire iDEN technology. Defendant's almost immediate and calculated efforts to steal iDEN documents upon her brief return to the United States, further evidence her desire to obtain these documents before she returned to China and Sun Kaisens. Indeed, she admitted just that to the FBI (that she took these documents for her next job). Whether she was right or wrong in believing that the iDEN related technology documents would actually benefit her work at Sun Kaisens and the Chinese military projects, the evidence shows that was her intent in stealing the Motorola documents shortly before boarding a plane for China. And, Defendant's intent is the key to this two-level enhancement under Section 2B1.1(b)(5).

There is also good reason to believe that Defendant was correct about the application of iDEN technology to some of the Chinese military projects detailed in the Chinese military documents. For instance, two of the Power Point presentations drafted by the Chongqing Institute, which were recovered from Defendant at the airport, address the Chinese military's efforts to find a telecommunications technology that could function on a 50 kilohertz or 25 kilohertz channel. Motorola's iDEN technology maximizes these narrow channels, while competing CDMA and GSM technologies need a much larger channel. The Court noted in its order that other publicly available technologies also can function on a 25 or 50 kilohertz channel, but Defendant did not spend her last few days in the United States downloading these publicly-available technologies from the Internet. Instead, Defendant, who knew the iDEN technology well after her years at Motorola, implemented a risky scheme to gain access to and steal Motorola's iDEN technology. The overlap between the Sun Kaisens projects she was asked to help with in China and the iDEN technology are the best explanation for Defendant's motivation to steal the documents.

Moreover, there is no doubt that Sun Kaisens was interested in Motorola technology. In fact, the evidence showed that by February 2007, Sun Kaisens had already stolen and used Motorola technology. More specifically, among the documents stored on Defendant's external hard drive, was a Motorola document titled in part: "Motorola . . . Product Description Version 0.8f" and dated Tuesday, June 22, 2004 ("Diagram Document"). It was later discovered that "[o]n November 9, 2006, [Defendant] saved the Sun Kaisens document 'Next Generation Soft-Switching Technology Program Version 1.0,' dated August 2006, onto her thumb drive." Order, at 6. On page 9 of this document (marked for trial as THD-6_TR), Sun Kaisens copied an engineering diagram from the Diagram Document. The only difference between the Sun Kaisens diagram and the Motorola diagram is that the word Motorola was removed from the Sun Kaisens version. However, the Sun Kaisens version neglected to remove an "m" that stands for Motorola in the diagram. Accordingly, it is clear that by Defendant's return trip to China on February 28, 2007, her future employer Sun Kaisens already had stolen and used Motorola technology and made efforts to conceal the theft.

Additionally, as explained by Shawn Bateman, a former intelligence officer with the Department of Defense and the Defense Intelligence Agency who studied China and its military and defense industry for over 15 years, Defendant's conduct is consistent with intelligence collection methods used by the Chinese government to gather industrial information from the United States.² *See* Government's Supplemental Version of the Offense. Ms. Bateman's opinion further demonstrates that Defendant's theft was intended to benefit China and its military. As described in Ms. Bateman's Report ("Report") China does not exclusively rely on a small group of sophisticated,

² Ms. Bateman testified as an expert witness at Defendant's trial, and the Court found "[h]er testimony thorough, objective and credible." Order, at 43. The entire report is attached to the Government's Second Supplemental Version of the Offense.

well trained, intelligence agents to target the most secret and valuable information in the United States. Instead, China regularly uses a large number of untrained individuals with ties to China and already based in the United States to collect technologies that the individuals already have access to in the United States - with an emphasis on dual use technology (which can be utilized for military and civilian purposes). More specifically, the Report states, “China’s economic espionage efforts often were not targeted at the ‘crown jewels’ of US technological supremacy. Instead, much of the sought after information and technology is dated military-related or infrastructure-supportive technologies that are no longer classified and that often have both military and civilian applications.”

Id. at 7-8 (internal quotation omitted).

The Report also explains that the goal of the Chinese government in collecting any technology available is multifaceted and includes: “to catch up on the difference in technology, to gain influence around the world, to know more about where the competition is, and definitely to not have to pay for research and development . . .” *Id.* at 3; *see also id.* at 8-9. The Report also states that “the budgets of Chinese intelligence agencies have soared in recent years due to stolen information saving time and capital and leading to reduced foreign competition.” *Id.* at 3.

Additionally, the Report states that given Defendant’s multiple trips to China, her ties to the Military Mobile Communications Project Group, her work for other telecommunications companies - including Sun Kaisens - in China, and her desire to work for Sun Kaisens make her a likely information collector for China. Moreover, her access to classified military documents is consistent with an individual “vetted by the Chinese government and found not only worthy of a level of trust and confidence as a valued consultant to the Chinese military, but having the technical knowledge and expertise in military mobile communications technology necessary for their purposes.” *Id.* at 5. The Report also stated: “By providing those documents to [Defendant], it is apparent that the

Chinese military or its representatives viewed [Defendant] in the capacity of a consultant if not future employee.” *Id.*

Finally, the Report states that the iDEN information would have been prized by the Chinese government in 2007 because of its civil and military uses. *Id.* at 10-12. For instance, the Report notes that the iDEN technology is still in use in a number of markets, including the growing market in Africa and by the Israeli Defense Forces. *Id.* at 10. The Report also notes that the iDEN documents “would likely have been viewed as significant in their potential to shorten China’s [research and development] cycle in developing more advanced telecommunications technologies, reducing costs and providing a competitive edge as it ‘leap frogs’ toward parity with the West.” *Id.*

Accordingly, because Defendant stole the Motorola trade secrets intending to benefit the Chinese government and its military, Defendant should receive a two-level increase pursuant to Guidelines Section 2B1.1(b)(5).

Special Skill

The offense level is increased an additional 2 levels pursuant to Guideline §3B1.3 because Defendant used a special skill that significantly facilitated the commission of the offense. *United States v. Lange*, 312 F.3d 263, 269-70 (7th Cir. 2002); *see also* Guideline §3B1.3 note 4 (“‘Special skill’ refers to a skill not possessed by members of the general public and usually requiring substantial education, training or licensing. Examples include pilots, lawyers, doctors, accountants, chemists, and demolition experts.”). In *Lange*, the Seventh Circuit affirmed the district court’s application of the special skill enhancement to a defendant who was employed as a drafter in a theft of trade secrets case based upon the defendant’s associate’s degree and ability to use and manipulate drawing in AutoCAD. *Id.* More specifically, the Seventh Circuit stated that “[d]rafting skills,

including the use of AutoCAD, are ‘not possessed by members of the general public’, require time to master, and played a central role in the offense.” *Id.* at 270.

In this case, Defendant’s special skill surpassed the skill of the defendant in *Lange* as a drafter and knowledge of AutoCAD. Instead, in this case, Defendant’s special skill was as an iDEN software engineer for Motorola. She had undergraduate and master’s degrees in physics and had nine years of Motorola training as a software engineer in iDEN. Her skills as a software engineer are not possessed by members of the general public, require time to master, and played a central role in the offense. More specifically, her skills as an iDEN software engineer allowed her to access, target and steal a vast array of Motorola’s iDEN technology documentation.

B. Defendant Should Receive a Significant Sentence Pursuant to the Sentencing Factors under 18 U.S.C. § 3553(a)

For reasons explained below, the government asks the Court to impose a significant sentence. As an initial matter, the goal of sentencing is to achieve a sentence that is “sufficient but not greater than necessary.” 18 U.S. C. § 3553(a). In determining a reasonable and fair sentence, the Court must account for a variety of factors specific to the particular defendant and particular case. The framework for determining an appropriate sentence is set forth in Section 3553(a). In particular, Section 3553(a) requires that the Court ensure the sentence imposed properly considers, among other factors: (1) the nature and circumstances of the offense; (2) the history and characteristics of the defendant; (3) the need to reflect the seriousness of the offense, to promote respect for the law, and provide just punishment for the offense; (4) the need to afford adequate deterrence; (5) the need to protect the public from further crimes of the defendant; (6) the properly calculated Sentencing Guideline range along with pertinent policy statements provided by the Sentencing Commission; and (7) the need to avoid unwarranted sentencing disparities.

1. Nature and Circumstances of Offense and the Need to Reflect the Seriousness of the Offense, Promote Respect for the Law, and Provide Just Punishment for the Offense

a. Congress and the Courts View the Theft of Trade Secrets as a Serious Offense

Theft of trade secrets is a serious crime that has real consequences for the victim as well as the United States' economy. One of the primary objectives of the Economic Espionage Act is to promote economic security. *See, e.g.*, H. Rep. No. 788, 104th Cong., 2d Sess. 4 (1996); S. Rep. No. 359, 104th Cong., 2nd Sess. (1996). The House Report stated:

For many years federal law has protected intellectual property through the patent and copyright laws. With this legislation, Congress will extend vital federal protection to another form of proprietary economic information - trade secrets. There can be no question that the development of proprietary economic information is an integral part of America's economic well-being. Moreover, the nation's economic interests are part of its national security interests. Thus, threats to the nation's economic interest are threats to the nation's vital security interests.

H. Rep. No. 7888, 104th Cong., Sess. 4 (1996).

Similarly, the Senate Report stated:

In a world where a nation's power is now determined as much by economic strength as by armed might, we cannot afford to neglect to protect our intellectual property. Today, a piece of information can be as valuable as a factory is to a business. The theft of information can do more harm than if an arsonist torched that factory

The value of the information is almost entirely dependent on its being a closely held secret. It includes, but is not limited to, information such as production processes, bid estimates, production schedules, computer software, technology schematics, and trade secrets. It is, in short, the very information that drives the American economy. For many companies this information is the keystone to their economic competitiveness. They spend many millions of dollars developing the information, take great pains and invest enormous resources to keep it secret, and expect to reap rewards from their investment.

S. Rep. No. 359, 104th Cong., 2nd Sess. (1996).

Moreover, the Seventh Circuit and other federal courts have expressly recognized the seriousness of misappropriating trade secrets:

This is an important case because trade secrets protection is an important part of intellectual property, a form of property that is of growing importance to the competitiveness of American industry. Patent protection is at once costly and temporary, and therefore cannot be regarded as a perfect substitute. If trade secrets are protected only if their owners take extravagant, productivity-impairing measures to maintain their secrecy, the incentive to invest resources in discovering more efficient methods of production will be reduced, and with it the amount of invention. . . . The future of the nation depends in no small part on the efficiency of industry, and the efficiency of industry depends in no small part on the protection of intellectual property.

Rockwell Graphics Sys., Inc. v. DEV Indus., Inc., 925 F.2d 174, 180 (7th Cir. 1991); *see also United States v. Williams*, 526 F.3d 1312, 1323 (11th Cir. 2008) (noting the district court properly considered the danger to the United States economy posed by the theft of trade secrets).

b. Impact on Motorola

As Congress and the courts have made clear, any theft of a trade secret is a serious crime with real and severe consequences to the trade secret holder and the U.S. economy. While any theft of trade secret is a serious crime, Defendant's conduct is especially egregious because: (1) the technology Defendant stole was invented and developed by Motorola for 20 years; (2) the volume and value of the technology was vast; (3) the manner in which Defendant betrayed Motorola's trust to steal the technology was extraordinary; and (4) Defendant stole the Motorola documents with the intent to benefit Sun Kaisens and the Chinese military.

First, Defendant deserves a significant sentence because her goal was to steal and profit from the years of hard work and ingenuity of other Motorola employees. In this case, by at least the early 1990s, Motorola and its employees expended significant time and resources toward solving a particular problem in the cellular industry - namely developing a cellular telephone technology that

can operate on a narrow 25 kilohertz channel. By approximately 1993, Motorola engineers had solved the problem and invented the iDEN technology. Notably, the Motorola engineers were very successful in solving the problem. For instance, as the Court noted, in iDEN, the engineers developed a push-to-talk technology that is the fastest in the market place. Order, at 26.

While the iDEN invention was an engineering success, it was also financially successful for Motorola. Motorola started marketing and selling the technology in approximately 1993 in one United States city. Since that time, the technology has grown into a worldwide industry for Motorola that has employed hundreds of engineers and staff. In the past 20 years, the technology was deployed to customers throughout the world, and in approximately March 2006, the iDEN technology was used by over 25 million cellular subscribers worldwide (provided service by 32 iDEN operators throughout the world).

For more than twenty years, Motorola has invested hundreds of millions of dollars and countless hours of employee time on research and development for the sole purpose of being competitive in the marketplace and improving the iDEN product. *See* Government's Supplemental Version. This money and time was often recorded in a series of protected Motorola iDEN documents. The documentation was prepared in part to spark additional innovations by allowing Motorola employees to benefit from the work of others. Defendant's conduct put this investment of time and money in jeopardy because she was taking it wholesale away from Motorola. Rather than expend the effort to perform the work or rely on her own abilities, Defendant stole the work of others in the hopes of skipping these enormous research and development costs.

Defendant's conduct is particularly problematic because it stifles innovation. Motorola invented iDEN but shared the technology with Motorola employees to generate further innovation. Defendant's conduct likely makes any business consider further protecting trade secrets by

constraining the number of employees (trusted or otherwise) with access for fear of thefts, resulting and in further innovation being slowed or stopped.

Additionally, Defendant's conduct is egregious because of the volume and value of the iDEN technology she stole. As explained at her trial, Defendant stole a startling amount of the iDEN technology documentation. More specifically, Defendant stole hundreds of iDEN documents that amount to far more than one-third of the total critical iDEN documentation. Each of these documents requires a significant investment of time, money and resources. These resources are best illustrated by analyzing the charged trade secret documents: Moto-1, titled "Harmony Support For Horizontal Dispatch Networking, SAD No. 172" (a SAD document); Moto-2, titled "iDEN EOTD-Based E911 Location Without HAMR" (a white paper); and Moto-3, titled "Base Station System MOBIS Call Processing Interface Specification" (an interface control document). Redacted versions of the three charged Motorola trade secrets (Moto-1A, Moto-2A and Moto-3A) are attached as Exhibit 18, 18-1, and 18-2 to the Government's Version. These documents detail a great amount of information about the iDEN technology and also reflect the work of multiple Motorola employees and engineers. *See id.*; Exhibit 15 to Government's Version.

Each document encompasses a significant investment of Motorola employee time and resources. The three documents range in length from 72 (Moto-1A), 22 (Moto-2A), and 162 pages (Moto-3A). The revision history of each document shows that a number of different engineers worked on the technology set forth in the documents for a significant period of time. Moto-1 was first drafted in June 2005, and the most-recent revision is listed as August 30, 2006; Moto-2 was first drafted in March 2000 and last revised in November 2000; Moto-3's revision history spans from May 2001 to February 8, 2007. Moreover, Moto-3 has a seven-page table of contents, and the documents also contain 143 tables and 29 figures. Moreover, as Bruce Drawert, the government's

expert witness on iDEN, testified, each of these documents reflects fundamental aspects of the iDEN technology that are applied in all iDEN systems sold throughout the world. Exhibit 15 to Government's Version, at 45, 57-58, 67.

Bruce Drawert also made clear that the building blocks of the iDEN technology contained in the three charged documents would assist a competitor in building a competing iDEN product or technology. *Id.* at 46, 52, 67; *see also* Government's Supplemental Version, at 2 (Motorola letter explaining how the disclosure of the stolen technology would negatively impact its iDEN business). In other words, the documents would allow a competitor to unlawfully enter the iDEN market - a market that is 100 percent dominated by Motorola as the inventor of the proprietary technology. And, whether examining research and development costs or revenues, iDEN is big business for Motorola.

With respect to research and development costs, Motorola invests millions of dollars annually to further develop the iDEN technology. For instance, between 2001 and 2006, Motorola invested over \$600 million into the research and development of its iDEN technology. In 2006 alone, the investment into Research and Development of iDEN technology was over \$50 million.

Also, with respect to iDEN revenues, in 2011, Motorola reported revenues of \$365 million related to iDEN. *See* Exhibit 17 to the Government's Version, at 9; Government's Supplemental Version. And, as the Court noted, the revenues for iDEN have been on the decline. Thus, the revenue numbers were greater in 2006 and 2007 (at the time of the offense) than in 2011. A further reflection of the scope of the iDEN business is reported revenue from certain customers of Motorola. Namely, NII holdings (Nextel International), one of Motorola's largest customers, reported revenues of over \$2 billion. *See* excerpt of NII's 2006 Form 10-K filing, attached as Exhibit 19 to Government's Version, at 111. In this same document, NII made the following disclosure:

Our digital mobile networks utilize the advanced iDEN technology developed and designed by Motorola. iDEN technology is able to operate on non-contiguous spectrum frequencies, which previously were usable only for two-way radio calls. . . . Although iDEN offers a number of advantages in relation to other technology platforms, including the ability to operate on non-contiguous spectrum like ours and to offer the Nextel Direct Connect walkie-talkie feature, unlike other wireless technologies, it is a proprietary technology that relies solely on the efforts of Motorola and any future licensees of this technology for product development and innovation. We also rely on Motorola to provide us with technology improvements designed to expand our wireless voice capacity and improve our services. Motorola is currently and is expected to continue to be our sole source supplier of iDEN infrastructure and all of our handsets except Blackberry devices, which are manufactured by RIM.

Id. at 15. Needless to say, a nefarious competitor not concerned about intellectual property rights, would clearly be interested in cutting into just a fraction of Motorola's iDEN revenue - especially if it had the opportunity handed to it on a portable hard drive to be deciphered by an employee with nine years of expertise in the technology. The scope of Defendant's crime is enormous, and the economic consequence to Motorola quite severe.

There is also a human toll to Defendant's crime. *See* Government's Supplemental Version. In creating iDEN, Motorola also created the iDEN industry and iDEN jobs. *See id.* Thousands of Motorola employees have worked on iDEN technology since it was invented. As of February 2007, Motorola had close to 900 employees related to iDEN worldwide, and there were 32 cellular phone operators using iDEN. *See* Government's Second Supplemental Version. Defendant's conduct, of stealing a blueprint of the iDEN technology, put these jobs at risk - as any reduction in market share (whether legitimate or illegitimate) would likely risk cost cutting measures, such as reduction in the labor force.

Additionally, Defendant's crime was particularly egregious because it involved a severe and unique abuse of Motorola's trust. Motorola hired Defendant in 1998 as an iDEN software engineer, and in that time invested in her and provided her with access to its proprietary iDEN technology.

Defendant also signed agreements and acknowledgments with Motorola that she would only use Motorola information for her work at Motorola. Defendant received promotions and favorable reviews from her supervisors and pay increases from \$47,000 in 1998 to \$87,000 in March 2005.

However, Defendant was successful in concealing from Motorola that by 2005, she had already betrayed its trust. In the summer of 2004, Defendant was being paid to work on projects for Lemko, another telecommunications company in the Chicago area. Exhibit 1 to Government's Version. Twice in 2005, Defendant traveled to China with others from Lemko to perform work at Sun Kaisens. Defendant concealed all of this information from Motorola. In fact, when Defendant became ill in the summer of 2005, she asked for and received a leave of absence from Motorola. And, when she was well enough to work, Motorola took her back. But, shortly thereafter in the fall of 2005, Defendant took her second trip to China to work for Sun Kaisens. Again, Defendant kept this information from Motorola as she knew it was prohibited by her employment agreement.

In February 2006, Defendant again became ill and again asked for and received a leave of absence. Shortly thereafter, while on this sick leave, Defendant began negotiating employment with Sun Kaisens through email. In November 2006, while still on sick leave for Motorola, Defendant traveled to China and again worked for Sun Kaisens. As explained above, on this trip, Defendant was given a number of Chinese classified military documents describing military telecommunications projects and asked to help. She agreed to help.

On February 15, 2007, Defendant returned to the United States and began executing her scheme to steal Motorola technology. First, Defendant contacted Motorola's personnel department and lied to them by stating that she wanted to return to work from her sick leave. In truth, Defendant wanted to return to Motorola to plunder Motorola's technology, but if she was honest, she would not have been allowed to return. As the Court stated: "[t]he direct and circumstantial evidence

overwhelmingly establishes . . . that Jin did not in fact intend to work for Motorola. Rather, her return was a *mere pretext to obtain thousands of Motorola proprietary documents*, including the charged documents.” Order, at 9 (emphasis added).

In fact, perhaps the best evidence of Defendant’s intent to steal and run to Sun Kaisens and China is how she handled her travel arrangements. On February 22, 2007, Defendant reserved two one-way tickets to China - one leaving on February 26 and the other leaving on February 28. The next day, Defendant met face to face with a Motorola employee and lied by telling the employee that she wanted to return to work -never mentioning the one way tickets she reserved. The employee assisted Defendant with the necessary paperwork and asked Defendant to return the following Monday (February 26) to meet with her supervisor, get her security badge and return to work. That time line was not ideal for Defendant, who wanted to get started stealing Motorola technology right away. So, Defendant asked the Motorola employee to let her inside Motorola’s secured campus without an active security badge. The employee rejected this request. Later that same day, Defendant cancelled her February 26 reservation and booked a flight for February 28 because he plans to steal technology over the weekend had been stymied. However, the Defendant did not give up.

On February 26, Defendant returned to work and met with her supervisor. She again lied and told her supervisor that she wanted to return to work. Defendant played the role of a returning employee, so that she could raid the computer system. And, that is exactly what she did. Defendant’s supervisor did not give her an assignment, but rather asked her to get settled in after her year-long sick leave. However, from shortly after the meeting with her supervisor through the early morning hours of February 28, at all hours of day and night, Defendant copied thousands of Motorola documents to her external hard drive (Defendant saved over 4,000 files on February 26

and over 1800 files early on February 28). *See* Government's Exhibit 1 to Government's Version. On February 27, Defendant emailed her supervisor and asked for a voluntary layoff because she was still too ill to work. Defendant was well enough, however, to stay up to the very early hours of February 28 copying Motorola files. Defendant was stopped later on February 28 at the airport.

Defendant's conduct while a Motorola employee demonstrates a complete lack of loyalty and a betrayal of Motorola's continued trust. As of 2005, Defendant was secretly working for two additional telecommunications companies. Given what happened in February 2007, it seems likely that Defendant was using Motorola inventions and work product to help these other companies. Motorola held up its end of the employment bargain by providing Defendant with an employment opportunity and the tools needed to succeed - including access to its iDEN technology. When Defendant became ill, Motorola was there with a sick leave and an opportunity to return. Defendant repaid these measures with repeated lies, including a series of lies Defendant told in person to various Motorola employees about her return to work. All the while, Defendant was counting on Motorola's trust in her to allow her time (approximately two days) to access the computer system.

Lastly, Defendant stole the Motorola technology with the intent to return to China and work for Sun Kaisens. This is yet another factor that makes Defendant's offense uniquely serious. As explained above, the documentation Defendant was handed by Liu at Sun Kaisens makes clear Defendant knew that Sun Kaisens worked on Chinese military projects. Also, even a cursory review of just the first page of some of the Chinese-language documents, many of which are classified, reveal their military nature. For instance, here are the titles of a just a few documents, some of which are classified and list the People's Liberation Army (Chinese military) as the author on their face, for instance: (1) "Military UHF Trunking Mobile Communication System"; (2) An Introduction of mobile Communication in Military Applications"; (3) "Military CDMA Mobile

Communication System Encrypted Short Message Center Interface Standard (Draft)”); (4) “Major Tactical Technology Specifications of Vehicular Mobile Switches of Military Comprehensive Mobile Communications Systems;” and (5) “Data Packet Format Protocol of Artillery’s Quick Counter Short Messaging Application System (Draft).” *See Exhibit 5 to Government’s Version*, documents numbered 2, 3, 8, 12, and 20.

Defendant’s work for Sun Kaisens and its Chinese military projects is disturbing and reveals a great deal about Defendant. First, it demonstrates a lack of loyalty to the United States as well as Motorola. It is clear that Defendant knew that she would be dedicating her education, talents and experience to the betterment of the Chinese military. To better serve this effort, she opted to steal technology that she had access to at Motorola.

Defendant’s conduct is also troubling because as she was hatching her plan to raid Motorola’s computer system before returning to China, Defendant took time out to be sworn in as a United States Citizen. More specifically, on February 20, 2007 (two days before she booked a return one way ticket to China), Defendant was sworn in as a United States Citizen. Below is the oath that naturalized citizens take:

I hereby declare, on oath, that I absolutely and entirely renounce and abjure all allegiance and fidelity to any foreign prince, potentate, state, or sovereignty, of whom or which I have heretofore been a subject or citizen; that I will support and defend the Constitution and laws of the United States of America against all enemies, foreign and domestic; that I will bear true faith and allegiance to the same; that I will bear arms on behalf of the United States when required by the law; that I will perform noncombatant service in the Armed Forces of the United States when required by the law; that I will perform work of national importance under civilian direction when required by the law; and that I take this obligation freely, without any mental reservation or purpose of evasion; so help me God.

8 C.F.R. § 337.1(a). New citizens take this oath. At the time of Defendant’s swearing in, she knew that she had already done work for the Chinese military, had classified Chinese military documents in her possession, and that she planned to return to China and continue her efforts to

benefit the Chinese military through Sun Kaisens. Contrary to the oath, Defendant was not a person who had “absolutely and entirely renounce[d] . . . all allegiance and fidelity to any foreign . . . state . . .” *Id.* Another betrayal of trust by Defendant.

2. Defendant’s History and Characteristics

Defendant was born in China, had a good childhood, is well educated in physics in China and the United States, and worked for almost nine years as software engineer for Motorola’s iDEN technology. Defendant’s family and assets are now in China. Namely, Defendant’s husband departed the United States shortly after Defendant was stopped at the airport in February 2007 and around the same time \$115,000 was wire transferred from Defendant’s joint bank account into a bank account in China. Defendant does not have a criminal history. Defendant has had a complicated medical history, and the government anticipates getting more information on Defendant’s health status prior to sentencing.

Notably, when Defendant first opted to betray Motorola’s trust and work for outside telecommunication companies, including Sun Kaisens, she was doing well financially. Defendant was making well over \$80,000 a year from Motorola and had no mortgage on her home. Order, at 68. She did not view this as sufficient, however, and in 2005 began drawing a salary for her work at a competing telecommunications company.

3. The Need to Afford Adequate Deterrence

While specific deterrence is not a significant issue in this case because the publicity of this case has greatly limited Defendant’s access to any sensitive or trade secret information, it is worth noting that this was a premeditated and well-planned crime. Defendant saw an opportunity to enrich herself and get something she wanted (a job at Sun Kaisens), and stealing

documents she had access to made that more likely to happen. Defendant had plenty of opportunities to change her plans and opt not to steal the information - but forged ahead anyway. That said, similar opportunities may arise for Defendant, and this Court's sentence should make clear to Defendant that such conduct has serious consequences.

A significant sentence will also make clear that federal courts consider the theft of trade secrets, from their employer or any one else, as a serious crime that garners a significant punishment. General deterrence is critical in these types of cases because theft of trade secrets is a relatively easy and profitable crime to commit and one that is often discovered after the damage to the trade secret is done. So, the best remedy for theft of trade secrets is deterrence.

To generate revenue, American industry often gives employees access to trade secrets to better do their jobs and to generate further invention or innovation. This access creates opportunity for innovation and theft. As explained above, curtailing access is not the answer, as that only harms industry and stifles development of new or better products and services. However, once an employee, especially a long-serving, trusted employee, has access to information, that information can easily be copied and sold, or taken to a new job without the trade secret holder's knowledge.

This crime is often committed by first-time offenders who are company employees and have the trust of their employers. This is not a difficult crime for a trusted employee to commit, and it would not be uncommon for an employee to be tempted to commit this offense. Trade secrets must be protected to preserve the health competitiveness of industry and promote free enterprise in the marketplace. Thus, the need for general deterrence is paramount here, and a significant sentence will make employees rethink misusing or stealing trade secrets. A significant sentence will also send a strong message to victim companies, like Motorola, that

pursuing criminal charges will have an impact to curtail trade secret thefts. These decisions by victim companies are not made lightly because they involve a substantial investment of time and resources for company employees. However, a significant sentence will send the appropriate message that the time and resources are well spent because courts will treat these thefts as serious crimes.

III. CONCLUSION

Based upon the arguments and evidence discussed above, the government respectfully submits that a significant sentence is warranted to comply with the sentencing purposes set forth in Section 3553(a).